AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-7 (cancelled).

Claim 8 (previously presented): Alumina hydrate particles having a composition represented by the general formula:

$$x\ M_2O \cdot y\,(NH_4)_2O \cdot Al_2O_3 \cdot z\,H_2O$$
$$2 \times 10^{-4} \leq x \leq 25 \times 10^{-4}$$
$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$
$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

Claim 9 (currently amended): A process for producing alumina hydrate particles, comprising the steps of:

neutralizing an aqueous solution of alkali metal aluminate or an aqueous solution of aluminum salt to thereby form an alumina hydrogel;

separating the alumina hydrogel by filtration, and washing the separated alumina hydrogel with water and/or aqueous ammonia such that the
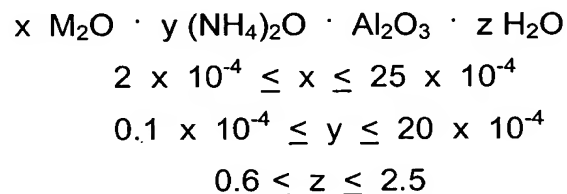
amount of alkali metal contained in alumina hydrate particles is in the range of 2 x 10^{-4} to 20 x 10^{-4} mol, in terms of oxide, per mol of Al_2O_3;

adjusting the pH value for the washed alumina hydrogel so as to fall within the range of 9 to 12 by aqueous ammonia, and heating the alumina hydrogel at 50 to 105°C to thereby effect aging of the alumina hydrogel, wherein during or after the aging of alumina hydrogel, ammonia is removed until the ion conductivity of alumina hydrogel falls within the range of 10 to 1000μS/cm;

adding an acid to the alumina hydrogel so that the alumina hydrogel is deflocculated into an alumina hydrosol; and

drying the alumina hydrosol.

Claim 10 (previously presented): An alumina hydrate particle dispersion sol comprising a dispersion of alumina hydrate particles in water, wherein said alumina hydrate particles have a composition represented by the general formula:

$$x \ M_2O \cdot y \ (NH_4)_2O \cdot Al_2O_3 \cdot z \ H_2O$$
$$2 \times 10^{-4} \leq x \leq 25 \times 10^{-4}$$
$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$
$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

Claim 11 (previously presented): The alumina hydrate particle dispersion sol as claimed in claim 10 having an absorbance (ABS) of 2.0 or less exhibited when the Al_2O_3 has a concentration of 20% by weight.

Claim 12 (previously presented): The alumina hydrate particle dispersion sol as claimed in claim 10 having a viscosity of 50 to 2000 cP exhibited when the Al_2O_3 has a concentration of 20% by weight.

Claim 13 (previously presented): The alumina hydrate particle dispersion sol as claimed in claim 12 having an absorbance (ABS) of 2.0 or less exhibited when the Al_2O_3 has a concentration of 20% by weight.

Claim 14 (previously presented): A coating liquid for forming an ink receptive layer, comprising:

alumina hydrate particles and a binder, wherein said particles and binder are dispersed in one of water or an organic solvent,

wherein the alumina hydrate particles have a composition represented by the general formula:

$$x\ M_2O \cdot y\ (NH_4)_2O \cdot Al_2O_3 \cdot z\ H_2O$$
$$2 \times 10^{-4} \le x \le 25 \times 10^{-4}$$
$$0.1 \times 10^{-4} \le y \le 20 \times 10^{-4}$$
$$0.6 \le z \le 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

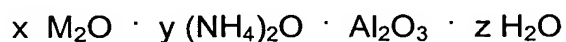an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

Claim 15 (previously presented): A recording sheet with ink receptive layer, comprising a substrate sheet having an ink receptive layer formed thereon from a coating liquid comprising:

alumina hydrate particles and a binder, wherein said particles and binder are dispersed in one of water or an organic solvent,

wherein the alumina hydrate particles have a composition represented by the general formula:

$$x \; M_2O \; \cdot \; y \, (NH_4)_2O \; \cdot \; Al_2O_3 \; \cdot \; z \, H_2O$$

$$2 \times 10^{-4} \leq x \leq 25 \times 10^{-4}$$

$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$

$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.